REPORT

on the

MARYLAND STATE ACCIDENT FUND

STATE FISCAL RESEARCH BUREAU

REPORT

ON THE

MARYLAND STATE ACCIDENT FUND

Submitted by
Woodward and Fondiller, Inc.
Consulting Actuaries
December 15, 1950

Special Studies No. 2
of the
State Fiscal Research Bureau
City Hall
Baltimore 2, Md.
1950

STATE OF MARYLAND
FISCAL RESEARCH BUREAU

City Hall
Baltimore 2, Md.

December 21, 1950

To the Honorable
The General Assembly of Maryland:

To the Legislative Council of Maryland:

The Maryland State Fiscal Research Bureau hereby transmits the report on the Maryland State Accident Fund submitted on December 15, 1950 by Woodward and Fondiller, Inc., consulting actuaries. Because of the interest shown in the State Accident Fund by many members of the General Assembly at its 1950 session, the Legislative Council of Maryland authorized and directed the State Fiscal Research Bureau to engage casualty actuaries to study all major aspects of the Fund's operations. This report constitutes the findings resulting from the survey of the Fund.

The State Accident Fund was established in 1914 to insure those employers, with their employees and dependents, against occupational hazards included in the compulsory workmen's compensation laws who did not choose to or could not obtain insurance from private casualty companies.

The Bureau recommends that the findings and suggestions of the consulting actuaries be given careful study by the General Assembly, the Legislative Council and by appropriate administrative officers in order to effect economies, improve administration and correct the inequities involved in current practice.

The following summary and recommendations are proposed by the State Fiscal Research Bureau as a plan by which the changes suggested can be effectuated through legislative action:

1. The functions of the Commissioners should be redefined by statute directing them to act on broad problems of policy, administration and review and to delegate to staff members decision-making in accordance with such broad policy and other appropriate administrative actions.

2. The statute should designate the minimum number of commission meetings per year, perhaps four or six, and all other meetings should be designated as "special" meetings. The regular meetings should be adequate to dispose of normal business.

3. The Commissioner of Labor and Industry, or his representative, should be ex-officio a Commissioner of the Accident Fund. The experience and knowledge in the Department of Labor and Industry, such as in safety inspection, would be invaluable in determining the conduct of comparable or related programs in the Accident Fund.

4. The statutes should state that at least two Commissioners should be employers who are insured with the Fund at the time of their appointment. To avoid the danger of preferential treatment for any claimants, the statutes might specify that any claims involving risks in which any Commissioner or employee of the Fund is an interested party should be submitted to the Industrial Accident Commission by a procedure comparable to that of the usual appeal of a case to it. The meaningless language of the present statute regarding the qualifications of commissioners should be repealed.

5. The salaries of the Commissioners (except the representative of the Department of Labor and Industry, who would receive no additional compensation, except expenses) should be adjusted downward in accordance with the reduced amount of time needed as indicated above. Instead of $4000, $3600 and $3400 plus mileage for chairman, secretary and other members, respectively, it is suggested there be substituted a per diem plus mileage but with a maximum such as provided in some other states. Maryland might wish to establish lower maxima than $2500 for the chairman and $1000 for other members as established in New York, for example, in view of the fact that the New York Fund assets are 35 times greater and premium income 46 times greater than that of Maryland.

6. The General Assembly should clarify the competitive position of the Accident Fund. It should subject the Fund to the State premium tax as is the practice in other states. Furthermore, it should define the extent of solicitation to be permitted. Solicitation by mail but not by field solicitors constitutes one possibility. Two major purposes should be sought: (a) Employers in general should be made aware of the existence of the Fund and of its purpose; and (b) the Fund needs an increase in risks involving larger premium payments to offset its many small insurees and its less desirable risks.

7. The position of Superintendent should be strengthened by clarification of its duties by statute and placing it again under the merit system. All references to the assistant superintendent should be removed from the law.

8. The minimum amount of the catastrophe surplus ($50,000) should be removed from the law. The obsolescence of this language is shown by the actuary's recommendation of a figure twenty times the amount specified.

Major administrative steps that can be taken without legislative action include the following:

1. Validation of payroll audit procedure. The Commissioners should take appropriate action to assure themselves that the Fund is securing full premiums based on actual payrolls. It is very possible that a more effective payroll audit would uncover much additional revenue for the Fund.

2. The Commissioners should direct that a desk audit be taken of the agency to determine how the overstaffing indicated in this report might be eliminated.

3. The Commissioners should make an immediate determination of the specific risks upon which reinsurance is necessary and thereupon cancel its general reinsurance policy. This economy of several thousand dollars per year is made possible by the existence of the substantial general surplus which makes reinsurance virtually unnecessary.

4. The Commissioners should reduce the number of classes of risks and adjust the inequities in premium rates, especially in those classes in which the small number of risks insured with the Fund results in violent fluctuation of rates under present practices. The hazard of occupational disease should be duly weighted, and rates once established should be effective for two years.

5. The Commissioners should repay with interest the State of Maryland's original grant or loan of $15,000 made in 1914, for the purpose of financing the Fund's initial operations. This amount probably would be $30,000 to $50,000.

6. The Commissioners should effect the following actions as rapidly as possible: (a) A fund transfer of $246,000 from general surplus of the Fund to the catastrophe surplus, thus increasing to $846,000 this fund which subsequently should be enlarged to $1,000,000; and (b) the establishment of reserves, by transfer from the general surplus, including reserves for fluctuation in value of investments for stabilization of premium rates and for stabilization of dividends.

7. The Commissioners should give careful consideration to the desirability of periodic examination of the Fund by independent actuaries.

Many additional implications can be drawn from the report, but the foregoing represents major advances through which the General Assembly and the Fund Commissioners can effect economies and improve administration.

Respectfully submitted,

Elwyn A. Mauck

Elwyn A. Mauck,
Director

WOODWARD AND FONDILLER, INC.

Consulting Actuaries

524 West 57th Street
New York 19, N. Y.

December 15, 1950

Legislative Council
State of Maryland
Annapolis, Maryland

Gentlemen:

Pursuant to a letter dated September 27, 1950, signed by Dr. Elwyn A. Mauck, Director, State Fiscal Research Bureau, Department of Legislative Reference, we have made an

"ACTUARIAL STUDY OF THE STATE ACCIDENT FUND"

in accordance with the terms of our letter of September 7th and earlier correspondence.

May we take this opportunity to thank the Commissioners of the State Accident Fund, Mr. Richard K. Coggins, Superintendent of the Fund, the various members of his staff and Mr. Herbert D. Bangert, the Fund's consulting actuary, for their courteous and prompt cooperation and assistance during the conduct of our study.

We are pleased to submit herewith our report on the results of our study.

Very truly yours,

/s/ RICHARD FONDILLER
President

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STATUTORY SURPLUS

Section 23, Chapter 800, Acts of 1914, as amended by Section 23, Chapter 504, Acts 1941; and renumbered as Section 76 under Chapter 528, Acts of 1945, provided as follows:

> "Ten per centum of the premiums collected from employers insured in the State Accident Fund shall be set aside by the Commissioners of the State Accident Fund for the creation of a surplus until such surplus shall amount to the sum of fifty thousand dollars, and thereafter five per centum of such premiums until such time as in the judgment of said Commissioners such surplus shall be sufficiently large to cover the catastrophe hazard. The Commissioners shall also set up and maintain a reserve adequate to meet anticipated losses and carry all claims and policies to maturity."

In compliance with the requirements of the foregoing statute, the Commissioners set aside, as a "catastrophe surplus", the following amounts of premiums:

Period	Percentage of Premium	Amounts	Accumulative Totals
Nov.1,1914 to Oct.31,1919	10%	$ 50,000.00	$ 50,000.00
	5%	8,190.49	58,190.49
Nov.1,1919 to Oct.31,1931	5%	188,745.98	246,936.47
Nov.1,1931 to Oct.31,1937	4%	115,263.38	362,199.85
Nov.1,1937 to Sept.30,1941	3%	80,144.73	442,344.58
Less: Catastrophe loss incurred in 1938		-25,000.00	417,344.58
Add: To adjust period Nov.1, 1931 to Sept.30,1941 at 5% instead of 4% and 3%		93,729.62	511,074.20
Oct.1,1941 to June 30,1944	5%	80,573.28	591,647.48
Add: Adjustment as of June 30, 1945 to bring surplus up to an even $600,000		8,352.52	600,000.00

From the table shown on the preceding page, it will be seen that nothing has been added to the catastrophe surplus account since June 30, 1945 and that the total of such surplus now stands at $600,000. At a meeting of the Commissioners of the State Accident Fund held November 30, 1944, the following resolution was adopted:

> "It is hereby resolved that inasmuch as the Catastrophe Surplus Account has now reached a very sizeable amount and in our judgment is more than is reasonably necessary for our risks and coverage, that the provisions for this charge be eliminated altogether as of that date on which the net total, after deducting the $25,000.00 tunnel explosion charge, amounts to $600,000.00. This Resolution is made with the understanding that it will not be effective until proper advices determine there is no conflict from a legal standpoint."

The wording of this resolution is somewhat ambiguous. However, the intent thereof is to suspend further additions to the catastrophe surplus account after it reached the sum of $600,000.00 but it does not preclude the resumption of such additions, if it is deemed desirable.

From the foregoing table it will be seen that there has been charged against this surplus account the amount of $25,000. This amount represents the Fund's share of the cost of a tunnel explosion which occurred in 1938 and which accident cost $58,144. The reinsurance company paid the excess over $25,000 to the Fund.

The accounting treatment of the primary loss ($25,000) was not correct. This amount should have been charged to "Losses Paid" rather than to the catastrophe surplus account.

The State Accident Fund is reinsured for losses in excess of $25,000 with a limit of $500,000 arising out of a

single accident. In view of this fact, there would be no charge against the catastrophe surplus account until the loss payment exceeded $525,000.

We have examined the current reinsurance agreement entered into by the "Commissioners of the State Accident Fund" and Lloyds', London. The essential details of this agreement are, as follows:

1. Coverage: Lloyds' are liable for any loss in excess of $25,000 but not to exceed $500,000 for any one accident. The term "accident" as used here, means an accident or a series of accidents arising out of one event or occurrence.

2. Premiums: The premium payable to Lloyds' for the above excess loss coverage is divided into four categories, as follows:

Coal Mines (Manual classifications 1001 and 1164)	2.0% of net premiums
Explosives (Manual classifications 4760,4761 and 4779)	4.5% of net premiums
All other classifications (Exduding State Employees)	0.35% of net premiums
State Employees	Flat $1,000.00 per annum

Note: "net premiums" means net premiums charged after merit rating, etc., but before payment of dividends.

3. Termination of Agreement: This reinsurance agreement may be terminated by either party upon not less than three months written notice.

The State Accident Fund first obtained reinsurance protection in 1917. In the thirty-four years since that date, the Fund has paid out in reinsurance premiums approximately $145,000.00. In this same period, the Fund experienced two catastrophe losses, in which Lloyds' were called upon to pay

excess losses, as follows:

I. On July 20, 1938, there was an explosion in the Montebello Loch Raven tunnel, resulting in the death of five persons and severly injuring seven others. The total cost of this accident was $58,144. The State Accident Fund recovered $33,144 from Lloyds'.

II. Ten years later, on November 1, 1948, there was an explosion in the Nethken Coal Mine killing five persons. The total cost of this accident was $31,525. The State Accident Fund recovered $6,525 (less $1,009 discount) from Lloyds'.

Thus it will be seen that the Fund has paid out $145,000 in reinsurance premiums and recovered from Lloyds' approximately $39,000, leaving a gross profit of $106,000 for the reinsurance companies (the American Reinsurance Corporation covered the Fund for a few years).

While it is true that hindsight is better than foresight, it nevertheless appears to us that as the Fund's surplus grew, there should have been some modification in the reinsurance coverage. The Fund has carried the same reinsurance limits since 1917 at which time the surplus was comparatively small.

Elsewhere in this chapter, we recommended that the catastrophe surplus account be built up to the sum of $1,000,000. We have also indicated that $256,000 should be transferred from general surplus, so that the present catastrophe surplus account could be increased to approximately $846,000. Since the general surplus account is well in excess of $2,000,000, there is no reason why this transfer could not be made. The subject of general surplus will be discussed in a separate chapter.

A study of the State Accident Fund's explosures in hazardous industries developed some interesting facts. The table which follows, shows the number of employees and annual payrolls of the five most hazardous classifications insured by the Fund during the fiscal year ended June 30, 1950:

Number of Risks	Annual Payroll	Number of Employees	Average Annual Wages
	Mining - Coal #1001		
1	$ 170,000	100	$1,700
1	62,000	35	1,770
75	1,368,000	665	2,057
Total 77	$1,600,000	800	$2,000
	Mining - N.O.C. #1164		
1	$ 80,000	35	$2,286
1	24,000	17	1,412
Total 2	$ 104,000	52	$2,000
	Fuses & Sparkler Mfg. #4760		
1	$ 34,000	22	$1,548
Total 1	$ 34,000	22	$1,548
	Fireworks Mfg. #4761		
1	$ 12,000	9	$1,333
1	26,000	36	722
1	1,200	2	600
Total 3	$ 39,200	47	$ 834
	Explosives & Ammunition Mfg. #4779		
1	$ 11,000	7	$1,571
1	5,000	3	1,667
1	115,000	65	1,770
1	36,000	40	1,750
Total 4	$ 167,000	115	$6,758
Grand Total 87	$1,944,200	1,036	$1,876

The foregoing table discloses that the State Insurance Fund insures a total of 87 risks, employing 1036 persons, engaged in the types of business which can be said to be actively exposed to catastrophes. The Fund collects approximately $90,000 premiums annually from these risks and pays out to Lloyds', London about $2,500 for reinsurance coverage for limits of $25,000/$500,000. In addition, the Fund pays to Lloyds' about $4,000 a year for similar coverage for all other classifications, including State Employees.

Only eight risks out of a total of 87 risks employ 17 or more persons. It should be understood that not all of these persons are actually engaged in mining or explosives manufacturing, etc. However, because of the proximity of some of these employees to the area of hazard, they take the same payroll classification.

Some of the risks having a sizeable number of employees operate in shifts, therefore, not all of the employees of a risk would be exposed to the same occurrence or accident.

Since the limit of liability in a death claim or permanent total injury claim is $7,500.00, in addition to any temporary total and medical payments, a catastrophe killing and injuring 20 persons would cost the Fund less than $200,000. The size of the catastrophe surplus account plus the general surplus account clearly indicates that the Fund could withstand a number of major catastrophes within the next century.

In the West Virginia Compensation Fund annual report for the year ended June 30, 1950, there is a table (Table 45) which shows the comparative cost of catastrophes for the period of 1914-1950. The payroll for that period totalled 13 and one-half billion dollars, the cost of catastrophe losses for that same period amounted to four and one-half million dollars, or an average cost of 4 cents per $100 of payroll. During the last ten years, with better safety work, this cost has been brought down to 2 cents per $100 of payroll.

Most of the West Virginia catastrophes have arisen out of coal mining. It is interesting to note that of the 333 deaths resulting from catastrophes in West Virginia during the past 12 years, 84% were in the coal mining classification. The rates of the Maryland State Accident Fund are sufficiently high to absorb the cost of an occasional catastrophe, which catastrophe would be substantially less costly than the West Virginia experience.

No reinsurance has ever been carried by the West Virginia and the Ohio State Funds. The Colorado and Idaho State Funds formerly carried reinsurance but no longer do so.

In our opinion, the catastrophe surplus account should be built up until it amounts to at least $1,000,000.00 or approximately the total of one year's premiums. Since the accumulated premiums from November 1, 1914 to June 30, 1950 totalled $16,425,966.06, the Commissioners could rescind its

resolution of November 30, 1944 and set aside the required additional sum to bring the catastrophe surplus account up to $846,298.00 as at June 30, 1950 and then to continue annual additions to the account until it reaches One Million Dollars ($1,000,000).

Further, it is our opinion, based upon the State Accident Fund's financial resources and its comparatively limited amount of exposure to catastrophe losses, that the Fund should rearrange its reinsurance coverage and assume most of the liability for catastrophe losses. We believe that the existing reinsurance treaty can safely be terminated. However, each of the larger risks under the classifications previously enumerated, should be inspected to determine the potential catastrophe hazard. If it is found that additional protection is indicated, the Fund should then obtain "Facultative" reinsurance for each individual risk in question. The cost of this reinsurance should be borne by each risk so reinsured.

If our recommendation is accepted, it will be necessary for rate making and for the purpose of charging the catastrophe surplus account, that the Commissioners adopt rules to define a "catastrophe". Some State Funds define a catastrophe as being an accident or a series of accidents arising out of one event or occurrence in which 3 or more persons have been killed or injured. The Industrial Commission of Colorado adopted a resolution providing that the charges against the catastrophe surplus account should be made only whenever an accident occurs

involving a total cost exceeding $15,000 in the Coal Mining and Explosives classifications, total cost exceeding $25,000 in the Mining other than coal group, and a total cost exceeding $50,000 in all other classifications. Only the amounts in excess of these costs are charged to the catastrophe surplus account.

GENERAL SURPLUS

There will be found annexed to this chapter, two exhibits, one is entitled "Exhibit 'A' - State Accident Fund - Financial Statement for the period from November 1, 1914 to June 30, 1950," the second is entitled "Exhibit 'B' - State Accident Fund - Statement of Gain and Loss from November 1, 1914 to June 30, 1950."

Exhibit "A" shows the operations for the 26 year period from November 1, 1914 to October 31, 1940 and for each individual fiscal period subsequent to that date. We had hoped to be able to present an exhibit of the operations for each individual fiscal period since the inception of the State Accident Fund. However, due to the fact that it was impossible to reconcile the general surplus account for the individual fiscal periods prior to October 31, 1940, we have had to be content with a reconcilitation of the combined 26 year period ended October 31, 1940.

Exhibit "B" is largely a condensed version of Exhibit "A". In this statement, we have shown the net gain and loss from underwriting, investments and other sources, for the period from November 1, 1914 to October 31, 1940, and the period from November 1, 1940 to June 30, 1950. This division of periods, although the result of the condition previously described, is advantageous to this discussion because it illustrates the position of the Fund prior to World War II and the developments arising out of that war.

From the attached exhibits it will be seen that for the period from November 1, 1914 to October 31, 1940, a period of 26 years, the gain from underwriting (after paying all expenses) amounted to $125,510.65, or only 1.4% of the premiums earned for that period. During this same period, the Fund paid out $65,906.44 in dividends to policyholders, leaving a balance of approximately $60,000 as an accretion to the General Surplus Account from premiums. In addition to this latter sum, the general surplus account was augmented by a portion of the total investment income of $898,484.

The "General Surplus" account as of October 31, 1940 totalled approximately $473,000, and the "Statutory Surplus" account amounted to $500,000 at that date, therefore, it can readily be seen that most of these two surplus accounts was derived from the investment earnings.

Further, it will be seen from these exhibits that, although 56% of the grand total earned premiums was developed during the 26 year period ended October 31, 1940, only 30% of the combined surplus accounts was accumulated during that same period.

It is extremely interesting to note that during the period from November 1, 1940 to June 30, 1950, the State Accident Fund experienced a "gain from underwriting" in the amount of $1,611,765 or 22.6% of the total premiums earned in that period. Approximately $1,100,000 of this sum was realized from the operations covering the period from October 1, 1941 to

June 30, 1945, the period corresponding to the active war years. A large portion of this accumulation represented excess premiums collected for overtime pay, bonuses, etc., for which there was no additional claims exposure on the part of the Fund. This windfall was experienced by nearly all carriers of workmen's compensation insurance. We think that we can safely say that such a condition will never again be repeated in the future, even though we should have another major war.

Our reason for calling attention to the factors underlying the accumulation of such a large amount of surplus, during a comparatively short period of time, is to illustrate the fact that these monies were not earned as the result of normal operations of the workmen's compensation insurance business.

During 1921 and 1922 the State Accident Fund paid its policyholders dividends totalling approximately $65,000. No further dividends were then paid until the fiscal year ended June 30, 1950. The Commissioners, recognizing that the Fund's general surplus was rather large, made the following statement, which appears in the letter addressed to the Governor in the 35th Annual Report (June 30, 1949):

> "The general surplus at this time, is, in the judgment of the Commissioners, larger than necessary to protect the solvency of the Fund and it has therefore been decided to declare a dividend of 20% on all policies in force on June 30, 1949, except minimum premium policies."

This dividend amounted to $171,016.19, of which $86,016.19 was paid during the fiscal year ended June 30, 1950 and $85,000.00 was unpaid and set up as a liability in the Balance Sheet at June 30, 1950.

In the 36th Annual Report (June 30, 1950) the Commissioners again took cognizance of the large general surplus and made the following statement in their letter, dated September 14, 1950, addressed to the Governor:

> "The general surplus at this time is more than sufficient to protect the solvency of the Fund and the Commissioners feel that the 20% dividend that was given last year can be repeated, excepting minimum premium policies."

The resolution covering the declaration of dividends was adopted by the Commissioners subsequent to the completion of its Balance Sheet as of June 30, 1950. Therefore, no liability for the payment of this dividend was set up in the aforementioned balance sheet. We have estimated that the payment of this dividend will reduce the general surplus by approximately $155,000. Therefore, if this amount had been set up as a liability at June 30,1950 and if the transfer to catastrophe surplus (previously referred to) had been made as of that date, the general surplus as at June 30,1950 would be approximately $2,200,000.

While the general surplus of $2,200,000 (as adjusted) plus the catastrophe surplus of $846,000 (as adjusted) may be viewed as disproportionately large for the volume of business now being done, nevertheless, this surplus position will insure the continuation of a strong and well stabilized State Accident Fund, and preclude the possibility of the Fund ever becoming a

financial burden on the State Treasury.

We are of the opinion that some portion of this general surplus should be earmarked for specific reserve accounts not now maintained by the Fund. Accordingly, we recommend the establishment of the following reserve accounts:

Reserve for Fluctuation in Value of Investments

This reserve account should be created for the purpose of providing for the contingency of a possible loss in the value of securities, in the event it should become necessary, to convert securities into cash under adverse conditions.

Although the Fund's current portfolio consists largely of U.S. Government Bonds, it is within the memory of the present generation of a period when U.S. Government Bonds were selling at a discount of 20%. While it may be argued that even though the market may fall, the Fund can hold its investments until maturity, yet we know that during past periods of depression, insurance organizations found themselves in the position where claim payments exceeded premium receipts, necessitating the forced sale of securities to meet claim payments.

Accordingly, we suggest that a "Reserve for Fluctuation in Value of Investments" of about 5% of the par value of the portfolio be established. This would transfer about $200,000 out of the general surplus account.

Reserve for Stabilization of Rates

Theoretically, sound actuarial practices for State Funds require that current premium rates equal current losses plus administration and general expenses. However, this degree of perfection is not possible. Therefore, in order to avoid violent fluctuations in rates, we believe it would be desirable

to maintain a reserve fund for the purpose of stabilizing these fluctuations. Accordingly, we would suggest that the sum of $400,000 be transferred from general surplus for this purpose. This amount represents approximately one-half of the present annual premiums.

Reserve for Stabilization of Dividends

Now that the Commissioners have adopted a program of dividend payments, it is highly desirable, for competitive reasons, that such program continue year after year. You will find that most insurance organizations (which pay dividends) follow a program of paying a fixed dividend percentage rate, year after year. In order to do so they set aside a percentage of the earned premiums, to provide a reserve for dividends to be paid during years in which dividends are not fully earned. In addition to earned premiums, income derived from investments can also be used for the payment of dividends.

Accordingly, we recommend that the sum of $500,000 be transferred from general surplus for that purpose.

Summarizing the foregoing recommendations as regards general surplus, we obtain the gollowing result:

General Surplus at June 30, 1950 - Per 36th Annual Report		$2,645,791.02
Less recommended transfers to:		
Statutory (Catastrophe) Surplus	$246,298	
Reserve for Fluctuation in Value of Investments	200,000	
Reserve for Stabilization of Rates..	400,000	
Reserve for Stabilization of Dividends	500,000	1,346,298.00
General Surplus at June 30, 1950 - As Adjusted		$1,299,493.02

The above sum should be considered to be additional reserves for adverse economic conditions; adverse court decisions liberalizing existing scale of claim benefits, and enabling the Fund to assume the entire catastrophe hazard in the event that facultative reinsurance cannot be secured.

One additional comment we have to offer, as regards general surplus, is the fact that included therein is the sum of $15,000 which was transferred to the State Accident Fund by the State Industrial Accident Commission during the fiscal year ended October 31, 1915.

It will be remembered that at the inception of the enactment of the Workmen's Compensation Law, the State Accident Fund was administered by the State Industrial Accident Commission. This Commission received an appropriation from the Legislature for the purpose of financing its operations. The subsequent operations of the State Accident Fund were financed out of the premiums received from the policyholders.

We can find no evidence that this money was ever returned to the State Treasury. While there may be no legal compulsion on the part of the Commissioners of the State Accident Fund to make such return, we feel that since the Fund is a self-supporting organization, that this sum of $15,000 (plus simple interest) should be returned to the State Treasury.

Since it is for the Commissioners to determine the rate of interest, we did not include the foregoing item in determining the adjusted general surplus at June 30, 1950.

	26 Years Nov. 1, 1914 to Oct. 31, 1940
Premiums Earned	$9,279,543.63
Losses Incurred	$8,198,516.45
Administrative and General Expenses	955,516.53
Losses and Expenses	$9,154,032.98
Gain from Underwriting	$ 125,510.65
Gain from Investments	898,484.18
Miscellaneous Income	138.88
Transferred from Appropriations	15,000.00
Total	$1,039,133.71
Dividends to Policyholders	65,906.44
Surplus for the Period	$ 973,227.27
Surplus at the Beginning of Period	—0—
Surplus at the End of Period	$ 973,227.27
Segregation of Surplus	
Statutory	$ 500,000.00
General	473,227.51
Invested in Equipment	—0—
Total	$ 973,227.51

RATE STRUCTURE

The Manual

The manual classification numbers and their descriptions as employed by the Fund are nearly all those in use by the National Council on Compensation Insurance and its branch in Maryland, the Maryland Compensation Rating Bureau. The Fund has a few classes which have a different number than the National Council and these should be changed to agree. In addition, the Fund has a number of classifications which do not appear to us to serve any useful purpose, most of which are designated as F classes. As stated elsewhere in this report, the Fund has only 3,609 risks which constitute but 8% of the workmen's compensation premium income of all insurance carriers. The aim of the Fund should be to simplify by combining classes whenever practicable; for example Nos. 2111 and 2118 have the same gross rate, comparable pure premiums and analogous hazards; these should be combined under National Council No. 2111, resulting in an increased exposure.

In the Fund's manual, rates are quoted for 435 classifications, out of which 408 classifications show experience for the ten years ended June 30, 1950.

Premium Rates

The consulting actuary of the Fund calculates the premium rates each year. Thus, the experience for the ten years ended June 30, 1950 was submitted to him in order to make his calculations to determine the rates to become effective on January 1, 1951.

In the following Table I entitled "Experience of 25 Principal Classifications" we have abstracted the ten year experience showing the payroll, premium and losses from the records of the Fund. The losses constitute the total compensation and medical benefits paid and outstanding. Therefrom, we have derived the pure premium (which is the loss cost per $100 of payroll) for these classifications. In Column (7) we have entered the gross premium rate which will become effective on January 1, 1951. Presumably, these gross premium rates include a loading of 15% to cover the cost of administration, reinsurance and the assessment for the Industrial Accident Board.

In Column (8) we have calculated the pure premium of the National Council on Compensation Insurance upon the basis of a 40% expense loading in the gross premium rate. The gross premium rates which were issued by the National Council and which became effective on September 1, 1950 are given in Column (9).

Adopting actuarial technique, we are setting up $100,000 in losses in a single classification as entitling it to 100% credibility. Measured by this criterion, Classes Nos. 2585 and 3081 should have a gross rate to include 15% for expenses in addition to the pure premium, but the pure premium is actually greater than the gross rate. Classes 1001 and 2702 correctly have a gross rate higher than the pure premium, but the per cent for expenses is 21% and 23% respectively. On this basis only 12 classes (including the foregoing) would be entitled to 100% credibility. Furthermore, only 2 classes would qualify for 90% credibility. In other words, the majority

of the 435 classifications have little or no credibility for ratemaking.

Since the experience covers a ten year period, law amendment factors and wage level factors should have been used to adjust the experience to present levels. We understand that a correction for off-balance in the merit rating plan was used.

From this table, we extracted several classifications given below where the State Fund pure premium is higher than the National Council. This is indicative of a poorer class of risks, or inadequate payroll auditing or both.

Manual No.	State Fund	National Council
1624	$3.51	$2.69
2003	.70	.51
2501	.17	.14
2585	1.09	.46
2702	5.42	3.20
2710	2.98	2.35
3081	2.50	1.52

and a number of other classes.

Then there are the following classes where the gross rate, which should include 15% for expenses, is less than the pure premium, which is the net cost of the insurance per $100 payroll.

State Accident Fund		
Manual No.	Pure Premium	Gross Rate 1-1-51
2585	$1.09	$ .90
3081	2.50	2.10
7380	.88	.80
8387	.84	.80

For the rate revision to be effective January 1, 1951 the Commissioners adopted (on November 16, 1950) their actuary's recommendation that no change be made in 266 rates and that 169 rates be reduced. These reductions are mostly minor in amount. It appears to us that a practical plan would be to have the same rates effective for two successive years, with the exception of those few classifications requiring a substantial change in rate.

The formula for minimum premium policies is to assume a minimum payroll of $1,200 for all rates of 84¢ and over. In the event that the rate is below 84¢, then the minimum premium is $10.00 per year. The Fund has 257 minimum premium policies on its books, all of which would pay a premium of double or greater under the National Council formula of $1,500 payroll plus loss and expense constants.

We do not find sufficient recognition of the occupational disease hazard in the Fund's rates. In those classes where exposure to (O.D.) occupational disease exists, sufficient statistics have been compiled by the National Council, which has published separate premium rates, as shown below for only two classes (there are others). We suggest that the Fund's rates be adjusted in the future to take account of this hazard.

	National Council			
Manual No.	Accident Hazard	O.D. Hazard	Total Rate	State Fund Rate
1741	$1.46	$3.88	$5.34	$2.00
1803	1.41	3.51	4.92	2.00

Experience Rating Plan

Each risk with a total premium of $500 or more for a ten year period (or lesser period) is rated by the experience rating plan of the Fund. In general, if the actual losses are lower than the expected losses, then a credit will be given so that the risk will pay a rate lower than the manual rate. However, if the actual losses are higher than the expected losses, the rate charged will be higher than the manual rate.

This plan is liberal in that it permits small risks with an average annual premium of $50 to be eligible, but it is not so liberal in that small risks are charged with the full amount of a death claim, permanent total or permanent partial. Such a small risk will be charged a 60% debit, so that a $1.00 rate will become $1.60 for a period of possibly ten years. To charge a small risk (similarly to a large risk) with the full impact of a fortuitous loss is not equitable and some formula should be devised to dampen down the effect of such high cost losses. We noted a few small risks which had a 30% credit; along came a death claim or other serious loss and they had a 60% debit for a period of ten years, resulting in doubling their premiums during the next ten years.

To illustrate the practical effect of the experience rating plan, if the class rate were $2.00 then the best experience would result in a 40% credit so that the rate would become $1.20; on the other hand, the worst experience would result in a 60% debit so that the rate would become $3.20.

For the last few years, the Fund has shown a credit off-balance of about 12% (estimated by its actuary) which indicates that the Fund has been generous in the type of experience rating plan now in effect.

The rules of the plan do not provide as to the treatment of a catastrophe for the individual risk.

Study should be given as to whether the maximum credit should be increased, also as to whether the maximum debit should be decreased, with due recognition of the size of the risk.

Payroll Estimates

The Fund bills all risks semi-annually, January 1 and July 1. The advance estimated payroll is generally based upon the actual payroll of the preceding six months. However, there are a small number of the larger risks whose low payroll estimates are accepted year after year by the Fund, because of the fear of the management that the risk would cancel with the Fund if an adequate advance premium were demanded by the Fund.

The last report of the State Auditor dated July 14, 1949 covered the period from July 1, 1946 to June 30, 1948. In that report, he states:

> "Review of the estimated premiums advanced by the policyholders indicates that the total advances are materially lower than the total actual premiums for the respective periods."

We have not found any improvement since the Auditor's report was received by the Fund.

We doubt that any such risks would cancel because they enjoy lower premium rates than if they were insured in an insurance company and furthermore a 20% dividend has been declared during the past two years. The practice of charging inadequate advance premiums constitutes the granting of credit and is a discrimination against other policyholders. We recommend that this practice be discontinued.

Rate Regulation

The State Accident Fund is not a member or a subscriber of the National Council on Compensation Insurance and is not bound to use the rates of the National Council. In fact, Section 72 of the Workmen's Compensation Law provides:

> "It shall be the duty of the Commissioners of the State Accident Fund to classify any industries....... and determine the risk of the different classes and fix the rate of premium for each class."

Under this section of the Law, the consulting actuary of the Fund revises the premium rates annually but it is done on an exposure in most of the classes that is small and not adequate.

The National Council compiles the experience for two policy years in Maryland; since this experience comprises 92% of the premium income, a much broader exposure is used which is far more dependable than that of the State Fund. However, we do not recommend that the State Fund become either a member or a subscriber to the National Council, since this would bind the State Fund to use the rates and the experience rating plan of the National Council. The State Fund would then have to

apply to the Insurance Commissioner for permission to use a deviation under Article 48A, Section 140A, paragraph 7 - Deviations. Such an application would probably be opposed by the other insurance companies or by the National Council. If the deviation were denied, the State Fund would be in a poor competitive position because it would have to write risks at the same rates as other companies and would also have to accept bad risks rejected or cancelled by other companies.

We recommend that the State Fund maintain an independent rate-making procedure; we trust that the Commissioners will amend the premium rate structure in accordance with the comments herein.

State Coverage

The State Accident Fund made a "Cost Plus Contract" effective September 1, 1949 with the State of Maryland for the coverage of its employees. The statement of account follows:

From September 1, 1949 to June 30, 1950

Premium paid		$123,859.60
Claims paid	$25,063.38	
Reserve for pending claims	75,190.14	
Coverage for prior claims	6,061.72	
Charge for administration	17,544.36	$123,859.60

The renewal premium from July 1, 1950 to June 30, 1951 is $148,632.50.

The contract provides for an administration charge based upon the total administration expense of the fund. Tentatively, the amount of 17½% for this item is included in the above premiums.

The State Accident Fund will charge the State with the exact cost of all claims, plus the exact cost of administration. The sole benefit to the Fund is that its administration expense will be reduced by the amount collected from the State, if no additional personnel is required.

An accounting at the end of three years will be made, to redetermine the premiums, the losses and the per cent for administration expense.

Table I

EXPERIENCE OF 25 PRINCIPAL CLASSIFICATIONS FOR 10 YEARS ENDED JUNE 30, 1950

Manual No.	Description	000 omitted Payroll	Premium	Losses	State Fund Pure Premium (3) ÷ (1)	1-1-51 Rate	National Council Pure Premium	9-1-50 Rate	Manual No.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1001	*Coal Mining	$9,742	$446	$387	$3.97	$5.00	$2.23	$3.72	1001
1624	Quarries	2,967	115	104	3.51	4.50	2.69	4.49	1624
2003	Bakeries inc. Salesmen	11,975	96	83	.70	.75	.51	.85	2003
2111	Canneries—N.O.C.	20,216	279	165	.82	1.00	.95	1.58	2111
2118	Canneries—with Can Mfg. Opt.	21,218	174	150	.71	1.00			2118
2501	Clothing Mfg.	53,099	138	88	.17	.23	.14	.24	2501
2585	Laundries	9,463	65	103	1.09	.90	.46	.77	2585
2702	Logging or Lumbering	2,556	238	139	5.42	7.00	3.20	5.33	2702
2710	Sawmills	3,596	176	107	2.98	5.00	2.35	3.91	2701
2731	Planing or Moulding Mills	2,500	59	30	1.22	2.25	1.89	3.15	2731
3081	Foundries—Iron	5,096	90	127	2.50	2.10	1.52	2.53	3081
3632	Machine Shops	8,144	84	66	.81	.90	.57	.95	3632
4815	Chemical Mfg.—Chrom.	7,187	132	107	1.49	1.60	.66	1.10	4815
5474	Painting, Dec. or Paperhanging	5,178	114	82	1.59	2.00	1.34	2.23	5474
5506	Street or Road Construction	10,846	235	140	1.29	2.00	1.43	2.38	5506
5551	Roofing—All Kinds	2,360	152	90	3.82	7.00	2.79	4.65	5551
5645	Carpentry (Detached Priv. Residences)	9,667	218	145	1.50	1.75	.81	1.35	5645
6217	Excavation—N.O.C.	5,509	139	74	1.34	2.00	1.07	1.79	6217
7380	Chauffeurs and Helpers	10,194	95	90	.88	.80	.39	.65	7380
7720	Policemen—inc. D.C.&H.	14,015	208	103	.74	1.40	.64	1.07	7720
8017	Stores—Store Risks—Retail	11,852	45	27	.23	.25	.17	.29	8017
8387	Gasoline or Oil Supply	6,125	58	52	.84	.80	.61	1.01	8387
8742	Salesmen	21,822	57	14	.07	.15	.10	.17	8742
8810	Clerical Office	51,606	23	20	.04	.04	.04	.07	8810
9079	Restaurants	11,028	85	68	.62	.75	.35	.58	9079

* Risks with $30,000 or over annual payroll pay National Council (No. 1016) rate of $3.10

RESERVES

Claim Reserves

We made an examination of the Fund procedures for setting up claim reserves, in order to determine their soundness and applicability. The following is a discussion of our findings:

Table II, which follows, shows (1) the claim reserves as computed by the Fund's claim adjuster, (2) the additional claim reserve established by the Fund's consulting actuary, (3) the total amount of claim reserve shown in the Fund's published "Balance Sheet" and (4) the ratio of additional reserve to the computed reserve for each of the fiscal periods from 1940 to 1950.

We have examined the procedures used by the claim adjuster in estimating and computing the claim reserves and find them sound. A detailed examination was made by the claim adjuster of every compensable claim open as of the close of each fiscal year and an estimate was made of the liability for compensation and for medical. In addition, the balance due on awarded claims was computed by the claim department.

Table II

CLAIM RESERVE

Fiscal Year Ended	Fund Reserve (1)	Additional Reserve (2)	Reserve As Per Balance Sheet (3)	Ratio of Additional to Fund Reserve (4)
10-31-40	$292,629	$269,371	$562,000	92%
9-30-41	284,351	246,648	531,000	87%
6-30-42	326,529	318,471	645,000	98%
6-30-43	295,513	176,487	472,000	60%
6-30-44	375,684	99,316	475,000	26%
6-30-45	330,576	129,424	460,000	39%
6-30-46	435,595	54,404	490,000	12%
6-30-47	482,769	207,231	690,000	43%
6-30-48	686,272	188,727	875,000	28%
6-30-49	649,531	200,469	850,000	31%
6-30-50	825,891	49,108	875,000	6%

The figures shown in column (1) of the foregoing Table, were submitted each year to the consulting actuary, who then established the additional amounts shown in column (2). The purpose of these additional amounts was to provide for under-estimates, generally for the two or three fiscal years immediately preceding the year of the Balance Sheet. We note that these additional amounts fluctuate from $49,000 in 1950 to $318,000 in 1942, a wide range that the gradually diminishing business of the Fund does not appear to warrant. This table shows that the percentage ranged from 6% to 98%.

By direction of the consulting actuary, the total of the "Fund Reserve" (column (2)) plus the total of the "Additional Reserve" (column (3)) became the amount of reserve entered in the Balance Sheet. This total is shown in column (4) as "Reserve as per Balance Sheet".

It was not possible to definitely determine the loss developments for the fiscal years 1940 to 1943, but it is obvious (from the ratios of 6% to 98%) that these years were substantially over reserved. This resulted in a large addition to surplus.

We present the "Development of Incurred Losses" in Table III. The year 1944 shows that it was slightly over reserved; turning back to Table II, it will be seen that the actuary loaded the Fund's reserve by 26%. The year 1945 in Table III shows that it was under reserved by 8%, in spite of the fact that the actuary had loaded the Fund's reserve by

39% (as per Table II). The year 1946 in Table III shows that it was under reserved by 14%, apparently because the actuary had loaded the Fund's reserve by only 12%. Lastly, the year 1947 in Table III shows it was over reserved by 39% (an unusually large percentage) which is apparently due to the heavy loading in Table II of 43% placed by the actuary.

It should be noted that the "Additional Reserve" (or loading) in Table II consisted of two or three years, but the bulk of it was for the latest year, the one which we are analyzing. It should also be noted that Table III consists of individual years, so that comparisons with Table II should be made with this fact in mind.

It appears from the foregoing analysis that the total claim reserves (as entered in the Balance Sheet) have not been determined consistently year after year. This situation should be remedied.

The amount of medical costs paid on "Medical Only" cases has been punched in the I.B.M. punch cards, but this has never been summarized by fiscal years or for the claim reserve. The actuary of the Fund should set up a reserve for these cases.

The I.B.M. punch cards do not provide a field for "Date of report of claim" hence it is impossible to ascertain the reserve for incurred but not reported claims. There is no field for "Re-opened claims" in the punch cards. A more accurate claim reserve could be set up, after the above information becomes available.

Table III

DEVELOPMENT OF INCURRED LOSSES TO JUNE 30, 1950

Year Ending 6–30	Claim Payments Paid to 6–30–50	Claim Payments Paid in First Year	Claim Payments Paid After First Year to 6–30–50 (1) − (2)	Claim Reserves as of 6–30–50	Total Claim Payments and Reserves After First Year (3) + (4)	Claim Reserves as of 6–30 of First Year	Additional Unallocated Reserve as of 6–30 First Year	Total Reserve as of 6–30 of First Year (6) + (7)	Excess of Reserves Over Payments (8) − (5)	Percentage Excess (9) ÷ (5)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1944	$441,771	$184,570	$257,201	$3,490	$260,691	$193,251	$84,328	$277,579	$16,888	6%
1945	419,705	169,338	250,367	6,161	256,528	133,090	102,621	235,711	−20,817	−8%
1946	461,102	190,938	270,164	28,988	299,152	216,748	42,002	258,750	−40,402	−14%
1947	422,956	221,074	201,882	45,912	247,794	187,990	157,195	345,185	97,391	39%

Other Major Reserves

We made a review of other major reserves to ascertain their propriety. The Balance Sheet as of June 30, 1950 showed only three major items other than unpaid claims, these are commented on below:

The reserve for "Uncollectible Accounts" of $32,733.11 shown in the Balance Sheet as of June 30, 1950 represents premiums which have been certified to the Attorney General for collection. In practice, these are processed by the Special Attorney (an Assistant Attorney General) from the office of the Fund. This account is an appropriate one.

The "Reserve for Prepaid Claims" represents the gross amount recovered from Lloyds, London on account of a catastrophe loss which cost the fund $31,525. The Commissioners accepted in full settlement of Lloyds liability in this case, the sum of $5,515.33, which is the commuted value of $6,525.00. We do not know why it was necessary for the Fund to request an immediate settlement with Lloyds.

The reserve of $6,525 represents the ultimate amount (in excess of $25,000) which the Fund will have to pay to the claimants. This amount could just as well be added to the regular reserve for claims.

The "Reserve for Dividends to Policyholders" in the amount of $85,000, is the estimated unpaid balance as of June 30, 1950 of the 20% dividend declared by the Commissioners in September 1949, upon the earned premiums for the fiscal year ended June 30, 1950. This reserve appears to be adequate and is entirely in order.

In the chapter entitled "General Surplus" we recommended the creation of several other major reserve accounts.

TAXES

We have made a study to determine what the fiscal effect would be upon the State Accident Fund and the revenue of the State, if the Fund had to pay the same premium taxes to which private casualty insurance companies are subject.

Article 81, Section 101 of the "Laws of Maryland relating to Insurance Companies and Fraternal Beneficiary Associations," defines the phrase "insurance company". Nowhere in this section is there any reference made to the business of the State Accident Fund.

Section 102 of the same Article provides for the imposition "upon every insurance company" of an annual tax of 2 per cent on all gross direct premiums derived from premiums reasonably attributable to insurance business in the State of Maryland. By "gross direct premiums" is meant: premiums after deducting returned premiums, dividends paid or credited to policyholders and premium deductions because of retrospective ratings.

Before we discuss the effects upon the State Accident Fund and the State Treasury (if the State Accident Fund should become subject to a premium tax), we would like to give the following reasons why we are of the opinion that, notwithstanding the fact that there is no relationship between the Fund and the Insurance Department, Section 101 of Article 81 should be amended to include the State Accident Fund:

1. The State Accident Fund is theoretically in competition with private carriers and because of the fact that the private carriers must pay premium taxes, the Fund is very often charged with having an unfair advantage. As in the case of the assessments levied by the State Industrial Accident Commission, the premium taxes paid to the Insurance Department are fundamentally for the purpose of maintaining that Department. Nevertheless, we feel that in order to eliminate one of the bases for charges of unfair competition, it would be desirable that the State Accident Fund pay premium taxes.

2. Naturally, premium taxes are included in the rate structure of the premium rates calculated for private carriers. The payment of premium taxes by the State Accident Fund will also require the absorption of these taxes in the Fund's rate structure. This would make the State Fund premium rates more responsive to comparison with rates charged by private carriers. Elsewhere in this report there is a full discussion of the subject of "Rate Structure".

3. Most States having competitive State Funds impose premium taxes on the Fund. After thirty-five years of tax exemption, a bill was passed in 1949 by the New York State Legislature, imposing a 2% premium tax on the New York State Insurance Fund.

Inasmuch as the annual premium income of the State Accident Fund is only about 8% of the total workmen's compensation premiums of the State, the fiscal effect on the State Fund and on the State revenue will not be very great.

During the fiscal year ended June 30, 1950, the total premiums of the State Accident Fund amounted to approximately $860,000. Dividends paid and declared by the Fund during that period amounted to approximately $170,000. Therefore, the "gross direct premiums," as defined by Section 102 of Article 81, amounted to $690,000. The premium tax on that sum would have been approximately $14,000 or about 1.6% of the premiums before deducting dividends.

Thus, if the State Accident Fund had paid a premium tax for the business of the fiscal year ended June 30, 1950, the premium tax receipts of the State Insurance Department would have been increased by $14,000. It is reasonable to expect that the future premium income of the Fund will remain about the same, therefore, the State revenue would be increased each year by the aforementioned sum.

In the subject entitled "Examination and Relationship" we called attention to the fact that the State Accident Fund is assessed by the State Industrial Accident Commission in the same manner as all other writers of workmen's compensation insurance.

SOLICITATION FOR BUSINESS

In the "13th Annual Report" of the State Industrial Accident Commission, which covered the fiscal year ended October 31, 1927, the author of that report discussing the premium receipts of the State Accident Fund (which amounted to about $414,000 for that fiscal year) said:

> "The State Fund of Maryland is now the largest compensation insurance writer in the State."

A review of the development of the State Fund premium writings after 1927 is most enlightening. In the table which follows, we show a comparison of State Fund premiums with the total workmen's compensation insurance premiums received in Maryland by all insurance carriers from 1939 to 1949. Some of the data was not available for the years 1941, 1942 and 1944. However, the missing data would not materially alter the conclusions.

In 1939 the State Accident Fund received about 17% of all the workmen's compensation premiums received in Maryland, and in 1949 this ratio had fallen to 8%. From this it will be seen that the State Fund has gradually been losing ground.

TABLE SHOWING WORKMEN'S

COMPENSATION PREMIUMS (000 OMITTED)

RECEIVED IN MARYLAND

Calendar Year	Maryland Companies	Out-of-State Companies	Foreign Companies	State Fund	Total	Ratio of State Fund To Total
1939	$ 489	$2,626	$257	$703	$4,075	17.3%
1940	629	3,025	269	705	4,628	15.2
1941	*	*	*	596		
1942	*	*	*	768		
1943	2,253	7,100	456	648	10,457	6.2
1944	*	*	*	640		
1945	2,350	5,659	432	629	9,070	6.9
1946	776	5,035	350	714	6,875	10.4
1947	1,169	6,512	459	833	8,973	9.3
1948	1,578	7,839	505	900	10,822	8.2
1949	1,838	8,144	529	902	11,413	7.9

*Data not available

The following table shows the amount of payrolls reported by insurance carriers to the State Industrial Accident Commission. This information is used by the Commission to determine the ratio of assessments to be levied against the carriers. We are presenting this data since it further illustrates the small volume of business insured by the State Fund. In 1940 the State Fund ratio was 9.7% of the total and since that date the ratio has consistently been less than 7%. This confirms the lack of progress on the part of the State Fund.

TABLE SHOWING AMOUNT OF PAYROLLS (000 OMITTED) REPORTED TO THE STATE INDUSTRIAL ACCIDENT COMMISSION BY ALL CARRIERS IN MARYLAND

Calendar Year (1)	All Carriers Including State Fund (2)	State Fund Only (3)	% of State Fund to Total (3) ÷ (2) (4)
1940	$395,587	$38,200	9.7%
1941	547,896	37,500	6.8
1942	1,021,435	45,628	4.5
1943	1,341,967	38,794	2.9
1944	1,040,844	52,809	5.1
1945	938,680	54,006	5.8
1946	894,190	60,059	6.7
1947	1,120,675	73,207	6.5
1948	1,281,520	81,645	6.4
1949	1,303,858	89,044	6.8

In the foregoing we have indicated that the State Accident Fund is losing ground. The following table is being presented to show the distribution of the business of the State Fund by size of premium:

TABLE SHOWING DISTRIBUTION
OF STATE ACCIDENT FUND BUSINESS
BY SIZE OF PREMIUM

Number of Policies	Producing Annual Premiums From	Producing Annual Premiums To
2,135	$ 10	$ 100
570	100	200
271	200	300
152	300	400
95	400	500
79	500	600
44	600	700
38	700	800
33	800	900
22	900	1,000
15	1,000	1,100
15	1,100	1,200
16	1,200	1,300
15	1,300	1,400
11	1,400	1,500
4	1,500	1,600
13	1,600	1,700
4	1,700	1,800
6	1,800	1,900
4	1,900	2,000
4	2,000	2,100
4	2,100	2,200
5	2,200	2,300
5	2,300	2,400
3	2,400	2,500
3	2,500	2,600
4	2,600	2,700
3	2,700	2,800
4	2,800	2,900
1	2,900	3,000
1	$ 3,100	$ 3,200
2	3,200	3,300
3	3,300	3,400
1	3,400	3,500
3	3,700	3,800
1	3,800	3,900
1	3,900	4,000
1	4,200	4,300
1	4,400	4,500
4	4,600	4,700
2	4,700	4,800
1	4,800	4,900
1	5,100	5,200
2	5,600	5,700
1	5,700	5,800
1	6,500	6,600
1	6,900	7,000
1	7,400	7,500
1	7,600	7,700
1	8,200	8,300
1	8,700	8,800
1	10,000	11,000
1	14,000	15,000
1	18,000	19,000
1	19,000	20,000

From the above table it will be seen that there are 3,609 risks insured by the State Accident Fund and these risks produce an average annual premium of $234 per risk. However, 3,435 of these risks produce an average annual premium considerably smaller than $234, as is shown in the following summary:

Number of Policies	Producing Annual Premiums From	To	Approximate Total Annual Premiums	Average Annual Premium Per Risk
3,435	$ 10	- $1,000	$425,000	$ 124
103	1,000	- 2,000	143,000	1,388
36	2,000	- 3,000	83,000	2,297
21	3,000	- 5,000	70,000	3,333
10	5,000	- 10,000	62,000	6,000
4	10,000	- 20,000	63,000	15,750
3,609			$846,000	$ 234

The above summary of the distribution of risks, by size of premiums, discloses that the number of small risks is disproportionately large. It will be seen that 95% of the total number of risks insured by the Fund are "small risks", producing an average annual premium of only $124 per risk. Conversely, 5% of the total number of risks produce one-half of the total amount of State Fund premiums.

Since we did not examine the claims experience by size of risk, we do not say authoritatively that the "small risks" experience has been good or bad. However, we do know from our experience in this field and from the results of various Bureau investigations that all things being equal, "small risks" are not the most profitable class of business. Furthermore, very often "small risks" do not report payroll until an accident occurs.

Sometimes the location of a so-called accident is questionable and sometimes it is questionable as to whether or not the accident is in fact related to the job. Also, it is most difficult to make payroll audits of these small risks.

The Commissioners have been emphasizing the importance and benefits of a program of accident safety work. While we are in complete agreement with the importance of this work, we doubt the efficacy of such program when related to small businesses, of which the Fund has a preponderance.

We appreciate the fact that the Fund has no alternative but to insure all employers who apply for insurance to the Fund. The fact that the Fund does insure so many small employers is evidence that the Fund is fulfilling one of its purposes, the accommodation to those small employers who are required under the Law to carry workmen's compensation insurance but whose business is considered to be undesirable by private carriers.

The Fund has never solicited business and the business now on the books have come in on their own initiative or because they were rejected or cancelled by private insurance companies.

It may be argued that since the Fund is not a profit making institution, there is no necessity for the Fund to solicit new business. However, in view of the fact that the Fund is obviously losing ground, it is conceivable that it could eventually lose a substantial proportion of its larger and more profitable risks and be left with a residuum of unprofitable accounts. This would necessitate a very much different ratemaking procedure and the rates would in many instances become burdensome.

In view of the foregoing, and in order that the State Fund may be able to continue to charge equitable premium rates, we are of the opinion that the Fund should enter into a program of active solicitation of new business. By active solicitation, we do not mean solicitation by paid representatives. However, we do feel that the Fund should make employers aware of its existence through the medium of direct mailing and such other public announcements as may be desirable.

There is nothing in the statutes which bans solicitation of business by the State Fund. Two of the largest competitive State Funds, namely, New York and California, have engaged in very comprehensive solicitation and advertising programs, and continue to do so in spite of considerable opposition by brokers and agents. Apropos to the opposition by brokers and agents, a bulletin issued by the "Insurance Federation of New York, Inc.," an organization of brokers and agents, states in part, as follows:

> "Bills affecting the activities of the New York State Fund will probably again be introduced in January 1951. The three bills which were sponsored at this year's session and which are most needed are:.......
>
> 2. Legislation to prevent officers and employees of the State Fund from soliciting compensation business for the Fund or for any other insurance business, but permitting the advertising of rates......."

The above is apparently aimed at stopping personal solicitation rather than curtailing printed advertising. We do not believe that this bill will be passed.

In connection with the question as to whether or not the State Fund should actively solicit new business, which business is in the hands of private carriers, we would like to point out that the bulk of workmen's compensation insurance premiums earned in Maryland, is being received by companies not domiciled in the State. In 1949 these companies received 76% of the total workmen's compensation premiums written in the State. This compares with 70% received by these companies in 1939.

Because the State Fund writes only one line of insurance and only in Maryland, there is a block of business which the Fund could never obtain. We refer to firms doing business in other states as well as in Maryland whose policies are therefore written to cover all of their locations.

ORGANIZATION

Pursuant to the arrangements governing the scope of this study, we have made a survey to ascertain the adequacy of the Fund's organizational structure. This comprised an examination of the size of the panel of Commissioners, their duties and compensation, and a survey of the administrative organization responsible for the functions of the Fund. We present herewith the results of this survey:

Sections 68 through Section 82, of the Workmen's Compensation Law of the State of Maryland, describe the functions of the State Accident Fund and the duties and powers of the agency known as the "Commissioners of the State Accident Fund". This agency is composed of five Commissioners appointed by the Governor and are selected from among the employers, employees or other citizens of the State.

Pursuant to the requirements of an amendment to Section 69(a), on June 1, 1949 all of the terms of the Commissioners then in office, terminated as of that date and the Governor appointed one Commissioner for a term of one year, and one Commissioner for two, three, four and five years, respectively. All appointments after June 1, 1949 are to be for terms of five years each. Vacancies are to be filled by the Governor for any unexpired terms which may occur. Annually, the Commissioners elect a Chairman, Vice-Chairman and Secretary. Since there is no directive as regards rotation, the Chairman, Vice-Chairman or Secretary may succeed themselves.

The terms of office of the present panel of Commissioners are, as follows:

Term of Appointment	Term Expires
One year	June 1, 1950
Two years	June 1, 1951
Three Years	June 1, 1952
Four Years	June 1, 1953
Five Years	June 1, 1954

From the above it will be seen that the term of office for the "one year" appointee has expired. Pursuant to Section 69, "Each Commissioner shall hold office until his successor shall have been appointed and shall have qualified". We have been informed that no successor has as yet been named.

Section 69(b) of the Workmen's Compensation Law provides, that "The Commissioners of the State Fund shall appoint a Superintendent and an Assistant Superintendent to assist him in all his duties, both of whom shall hold office during the pleasure of the Commissioners and shall receive such salary as may be provided for in the Budget".

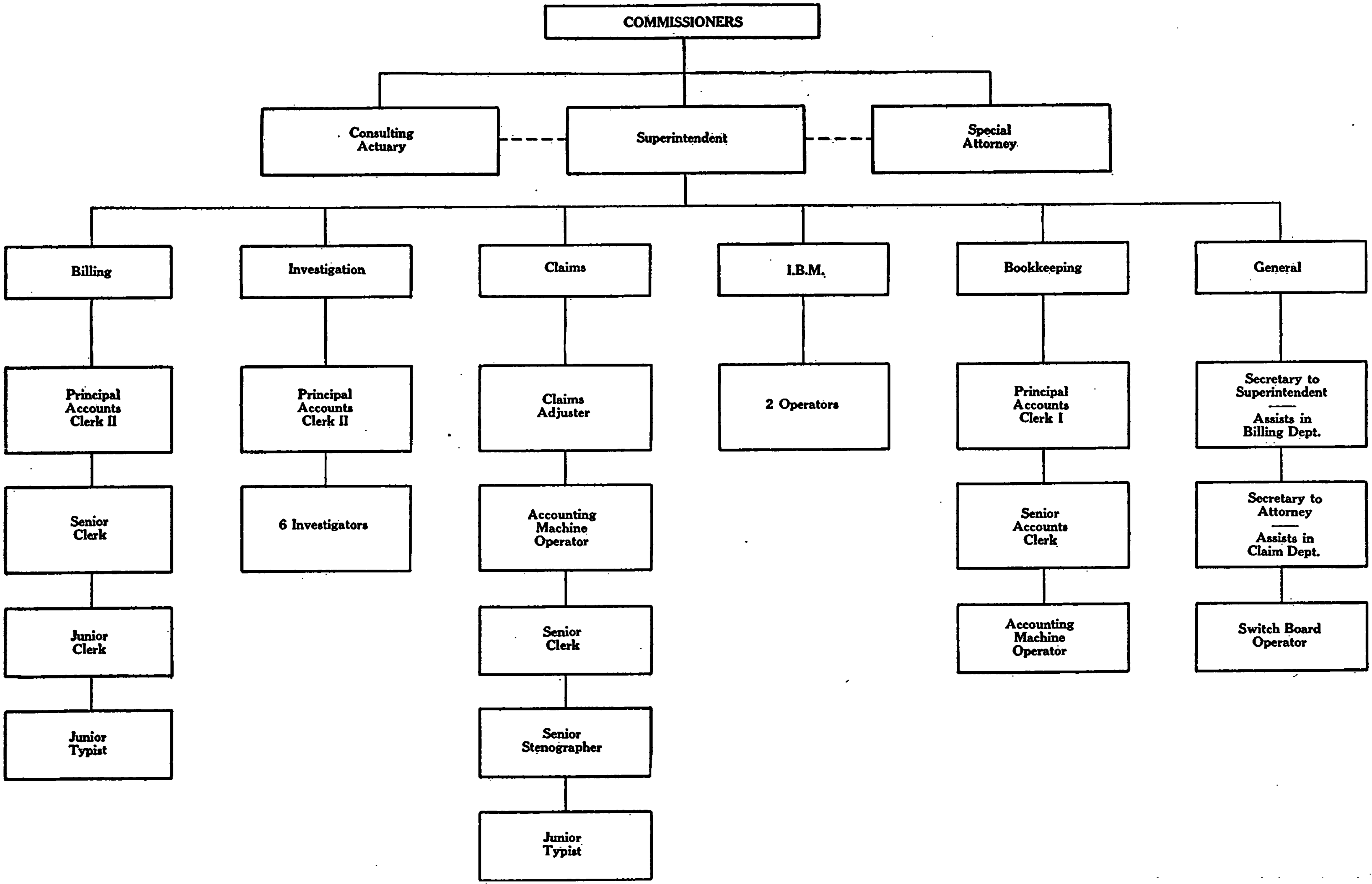
When the "State Accident Fund" was created as a separate agency and transferred from the jurisdiction of the "State Industrial Accident Commission", Section 69(b) provided that all the personnel then employed in the operation of the State Accident Fund, <u>other than the Superintendent</u>, be transferred to the new agency and that those persons so transferred retained their rights and status under Article 64A of the Code, entitled "Merit System". Section 69(b) further provides that future appointments, <u>except the Superintendent</u>, shall be made by the Commissioners in accordance with Article 64A.

Although the position of "Assistant Superintendent" has not been filled, we would like to point out an inconsistency in Section 69(b) under which Section this position has been created. It will be noted that Section 69(b) provides that both the Superintendent and the Assistant Superintendent "shall hold office during the pleasure of the Commissioners," yet further along in this Section, where reference is made to the "Merit System", the following is stated "....future appointments of such employees as are provided for in the Budget, except the Superintendent, shall be made by said Commissioners, in accordance with said Article 64A." It will be noted from the foregoing quotation that only the Superintendent has been excepted from the rights and status under the "Merit System".

The present budget of the State Accident Fund provides for a roster of 31 persons. This roster includes the five Commissioners, the Superintendent, the Special Attorney and 24 members of the staff. There follows an organization chart of the State Accident Fund, which we have prepared for the purpose of graphically depicting the organizational structure of the Fund. Although the consulting actuary is not a salaried employee, we have shown him on the chart because of the nature of his association with the Fund. The Special Attorney, although paid by the Fund, is not an employee of the Fund, he is assigned to the Fund by the Attorney General.

The scope of this actuarial study did not include a job analysis. However, from our general observations of the operations of the Fund it appears to us that there is enough personnel to handle considerably more volume of business than is now being done by the Fund.

ORGANIZATION CHART OF THE STATE ACCIDENT FUND



In the preceding text we showed that there are approximately 3,600 risks insured by the Fund. If the activities surrounding the handling of these risks were evenly distributed throughout the year, the average numbers of risks to be serviced each business day (260 days) would be approximately 14 per business day. While we appreciate the fact that the business is not evenly distributed, we believe that this in some measure indicates that the Fund is probably over-staffed.

Another indication that the Fund appears to be overstaffed, is the number of claims handled during a year. During the fiscal year ended June 30, 1949 the Fund received 6,353 notices of accidents. Eventually 1,162 of these notices became compensible claims. During the fiscal year ended June 30, 1950 the Fund received 6,878 notices of accidents and 1,190 of these notices were compensible claims. Expressed in terms of daily averages, we obtain the following:

	Fiscal Year Ended June 30, 1949	Fiscal Year Ended June 30, 1950
Average Number of Notices Received	24	26
Average Number of Compensible Claims	4	4

From the information contained in the "Organization Chart", it will be seen that there are seven persons (men) engaged as investigators. In addition to performing payroll audits and safety work, these men are required to make claims investigations. Besides the aforementioned investigators, there are five persons engaged in the clerical activities of the claims department.

In our opinion, a "job analysis" of the entire State Accident Fund is indicated. One of the State departments did make an analysis for the purpose of classifying positions under the "Merit System". What we are suggesting is an analysis of functional activities and volume of work produced, etc.

Notwithstanding the fact that we are of the opinion that the State Accident Fund is over-staffed, we believe that the Commissioners should appoint an Assistant Superintendent.

As matters now stand, there is no understudy to the Superintendent. The only person now available to "pinch hit" for the Superintendent is the woman in charge of the bookkeeping department. In all probabilities, due to her many years of service with the State Accident Fund, she is familiar with most of the office routine. However, since the Assistant Superintendent should be available as a successor to the Superintendent, we believe that the position should be filled by a man. It is our judgment that this position should come under the "Merit System".

We are also of the opinion that the position of Superintendent should be placed under the "Merit System". The position of Superintendent should be a "career job" and not subject to the political spoils system.

Very little is mentioned in the Workmen's Compensation Law relating to the State Accident Fund, regarding the duties and powers of the Superintendent. The following three quotations are the only references we found:

Sec. 74- "....it shall be the duty of the Superintendent of the State Accident Fund to send by registered mail notice of such cancellation to the employer.........."

Sec. 77- "The Treasurer of the State shall be the custodian of the State Accident Fund and all disbursements therefrom shall be paid by him upon order or voucher, approved and signed by the Chairman or vice-chairman of the Commissioners of the State Accident Fund and the Superintendent thereof.........."

Sec. 82- "The Superintendent of the State Accident Fund, with the consent and approval of the State Industrial Accident Commission, shall have full power and authority to compromise and settle any claim which it may have against any person who is allegedly to be legally liable for any accident in which compensation is paid by the State Accident Fund, provided, however, that no settlement shall be made by the State Accident Fund which shall prejudice the rights of the injured employee in any claim against any such person, without the consent and approval of the injured employee."

(Our comment: The above section appears to refer only to third party actions rather than settlement of claims against the Fund).

Other than the foregoing, there are no definitions or descriptions of the duties or functions of the position of Superintendent. In our opinion, it would be most desirable that the duties and responsibilities of the Superintendent be more definitely defined.

The various sections of the Workmen's Compensation Law dealing with the State Accident Fund, adequately set forth the functions and duties of the Commissioners. While we are heartily in accord with the type of agency which presently administers the activities of the State Accident Fund, we can not subscribe to the amount of annual remuneration received by the Commissioners. In

our opinion, the amounts are disproportionately large for the volume of business being done by the Fund.

The annual cost of salaries for all five Commissioners is $17,800 or approximately 2% of gross written premiums. In addition to the aforementioned amount, the Commissioners are entitled to their actual and necessary traveling expenses while engaged in transacting the business of the State Accident Fund, including those incurred in attending meetings of the Commissioners. These expenses represent an amount which is not inconsequential.

The Chairman and Secretary annually receive $4,000 and $3,600 respectively; the other three Commissioners receive $3,400 each. While these amounts are not great, the Commissioners render only part time services. The Commissioners are all engaged in personal activities. This is permissible under Section 69(a) which states as follows:

> "Said Commissioners shall operate and administer the State Accident Fund and shall devote as much of their time thereto as may be necessary to perform the duties incumbent upon them to carry out the functions of the State Accident Fund."

In the "Organization Chart" we showed that there are seven persons engaged under the heading of investigators. Their duties consist of payroll auditing, claims investigations and safety work. However, payroll auditing is their principal duty. No records are maintained by the Fund showing the status of the payroll audit work.

Although we have previously mentioned that we thought the Fund was over-staffed, it appears to us that some of the func-

tions are being neglected. In our discussion of premiums ("Rate Structure") we indicate that probably the Fund is not receiving all of the payroll which should be reported. It would seem to us that more payroll audits are indicated.

Possibly these investigators are spending more time on safety work than on audits. Because of the preponderance of small risks, we question the value of safety work in that direction. Since the Fund has comparatively few large risks, it seems to us that one qualified safety engineer could in all probability do most of this work.

In order to ascertain the nature of the Commissioners' work and actions, we read the minutes of their meetings since July 1, 1948 to date. They held 21 meetings in the fiscal year ended June 30, 1949 and 22 meetings in the year ended June 30, 1950. At about one-third of these meetings important or large claims were approved or disapproved, budgetary requests, reinsurance, State coverage and questions of general policy were determined. The balance of the meetings was spent considering routine reports of monthly business, doctors appointed, various claims of minor importance or small amounts, and numerous discussions which resulted in no definite action.

The Commissioners have no authority to invest the accumulated cash of the Fund and only pass resolutions requesting the State Treasurer to invest a named amount. The Commissioners must secure the approval of their budget by the Budget Director. As respects leases and contracts, the Commissioners approve them

subject to the final approval of the Board of Public Works.

The minutes of the meetings of the Commissioners disclose that they spend much time in considering claims under $1,000. We are of the opinion that these claims could be handled or should be handled by either the Superintendent, or a "Claims Committee " comprised of the Superintendent, the Special Attorney and the Claim Adjuster. From July 1, 1948 to June 30, 1950 there were only 19 claims of $1,000 or over, or of such importance as to warrant the personal attention of the Commissioners; that during the aforementioned period there were only enough really important matters to require about six meetings annually, subject to a special meeting if a matter required a prompt decision; and that some of the meetings consisted of unimportant matters and of inconclusive discussions which nullified the value of the meetings; and that no agenda and no copies of reports are sent in advance to the Commissioners so that they may come to a meeting more fully prepared.

It is interesting to compare the organizational composition of some of the other competitive state compensation funds. The table shown below is most enlightening:

State	Assets	Annual Premiums	Chief Executive		Administration	
			Title	Civil Service	Kind	Cost to Fund*
Maryland	$ 4,486,784	$ 859,259	Supt.	No	Commissioners (Five)	$17,800
Idaho	3,509,734	700,000	Mgr.	No	none	-0-
Colorado	9,288,772	2,567,378	Mgr.	Yes	Industrial Commission	-0-
New York	156,052,370	46,676,545	Exec.Dir.	No	Commissioners (Eight)	9,500

*Salaries only.

From the table on the preceding page it will be seen that, although the assets of the New York Fund are 35 times greater than the Maryland Fund, and the annual premium income of the New York Fund is 46 times as large as the Maryland premium income, the administrative salary cost of Maryland is almost twice as great as the New York cost.

The Colorado Fund, which is larger than the Maryland Fund, is under the jurisdiction of the Industrial Commission and thus has no direct cost from that source.

As regards the Idaho Fund, it will be noted that there is no "outside" administrative cost. That there should be a change in this particular, is borne out by a report dated November 1, 1950 of the Idaho Legislative Interim Committee on Workmen's Compensation Laws, which is quoted below:

> "This committee recommends the reconsideration by this legislature of the 1939 act. Here is a restatement of its crucial clause, setting up a bipartisan organization. We have made two or three changes. We think the designation should be "board of trustees" and that appointees of the governor to membership on the board be subject to confirmation of the senate. If this recommendation is followed, appropriate changes, as in the 1939 act, will be required, but such is a matter of detail in draftmanship. The section here quoted is the gist of the act:
>
>> There is hereby created the Workmen's Compensation State Trust to be administered by a board of trustees. It shall be the duty of such board of trustees to conduct the business of said Trust (heretofore known as the State Insurance Fund). The said board of trustees is hereby vested with full authority over the Workmen's Compensation Trust Fund (heretofore known as the State Insurance Fund, being Fund #136 in the State Treasury) and said board of trustees may do any and all things which are necessary and convenient in the administration thereof, or in connection with the insurance business to be carried on under the provisions of this chapter.

Said board shall consist of five members appointed by the governor with the advice and consent of the senate. Three of said trustees shall be representative of different industries in this state who are employers of labor and have been subscribers to the Workmen's Compensation State Trust (or its predecessor, the State Insurance Fund) for at least five years immediately prior to their appointment or employed in an executive capacity by such an employer; one shall be representative of the workmen in this state and one shall be a representative at large of the people of the state. Said board of trustees shall be non-political and not more than three trustees may belong to one political party. Each trustee shall give bond for the faithful performance of his duties in an amount to be fixed by the governor and with sureties approved by him.

The trustees shall be appointed for terms of five years each, except that of the trustees first appointed one shall be appointed for a term ending June 30, 1952; one for term ending June 30, 1953; one for term ending June 30, 1954; one for a term ending June 30, 1955, and one for a term ending June 30, 1956. Vacancies shall be filled by the governor for the unexpired portion of any term.

Said trustees shall select one of their number as chairman and a majority of the Board shall constitute a quorum for the transaction of business. Said board shall determine the business policy of said trust, select a manager therefor and fix his salary, and may employ such assistants, medical advisers, legal assistants, experts, statisticians, actuaries, accountants, inspectors, clerks and other employees as the trustees may deem necessary to carry out the provisions of this chapter, and may require any such officers and employees to give bond for the faithful performance of his duties in such amount as may be deemed advisable.

Said trustees shall hold an annual meeting on the third Monday of November of each year and such special meetings as may be called by the chairman or any two trustees upon five days' notice.

Minutes of meetings of the trustees shall be kept of all its proceedings. The trustees may designate the manager or any employee of the Trust to act as secretary and custodian of the minutes and records of the board of trustees.

> Each trustee shall receive $15 per day for time actually engaged in the transaction of the Trust's business but not to exceed $750 in any one year, and his necessary expenses in attending said meetings. Such remuneration and expenses shall be paid out of moneys belonging to the Trust."

For ready reference we are quoting from the New York State Workmen's Compensation Law as regards administration by the Commissioners and their salaries:

> Sec. 77- "Administration. The state insurance fund shall be administered by the commissioners of the state insurance fund, of whom there shall be eight. The industrial commissioner shall be a commissioner of such fund by virtue of his office. The commissioners shall elect annually from the appointive members a chairman and a vice-chairman who shall act as chairman in the absence of the chairman. The industrial commissioner may designate a deputy commissioner to act in his place and stead as a commissioner of such fund. The Commissioners shall be appointed by the governor, by and with the advice and consent of the senate. They shall be employers or executive officers of employers insured in the state fund. The commissioners shall be appointed for terms of three years each........."

> Sec. 78- "Salaries and expenses. The commissioners shall be entitled to receive as and for their compensation thirty-two dollars and seventy-eight cents per diem for each day actually spent in attendance upon meetings of the commission or on the business thereof, together with their actual and necessary traveling and other expenses incurred in connection with their attendance upon meetings or the business of the fund, which shall be paid out of the fund upon the warrant of the chairman of the commissioners or of the vice-chairman. No commissioner, except the chairman, shall receive as compensation for his services an amount exceeding one thousand dollars in any one year. The compensation for the services of the chairman shall not exceed in amount the sum of two thousand five hundred dollars in any one year."

In our opinion, the subjects of size, composition, duties and salaries of the Commissioners of the Maryland State Accident Fund should be reviewed in the light of the factual data presented in this report.

* * * * * * * *

EXAMINATION AND RELATIONSHIP

Examinations of State Fund

We have made a study to determine whether periodic examinations of the Fund should be made by the State Insurance Department or by independent consulting actuaries. The following is a discussion of our findings.

Inasmuch as the State Insurance Department has no jurisdiction over the Fund, no examination of the Fund by that Department has ever been made. Nor has a regular examination of the Fund ever been made by independent consulting actuaries.

The Workmen's Compensation Law of the State of Maryland provides that, "The Treasurer of the State shall be the custodian of the State Accident Fund". Since the Fund is in fact a department of the State, it is periodically examined by the State Auditor. These examinations, which are basically fidelity audits, are made approximately once each two years. The verification of receipts and disbursements is of course essential. However, since such verification is fundamentally a routine accounting procedure, no specific knowledge of insurance accounting procedures are necessary. Therefore, for an audit of receipts and disbursements the facilities of the State Auditor are entirely adequate.

Very few State Insurance Departments are adequately staffed with men qualified to make examinations of State Funds. As a matter of fact, only in a few States do the laws provide for an examination of the State Fund by the Insurance Department. In Colorado and Idaho (both States have competitive State Funds) the Law provides for examination by their respective Insurance Departments. However, in

each instance the Commissioner of Insurance engages independent consulting actuaries to conduct "Actuarial Examinations".

In conjunction with this study, we interviewed the Actuary of the Maryland Insurance Department and ascertained that their facilities for examining the State Accident Fund were no better than most States.

For the most part an "Actuarial Examination" should comprise the following major topics:

1. Verification of all reserves
2. Study of Statutory and General Surplus Accounts
3. Study of Solvency
4. Study of Claim Practices
5. Study of Underwriting Procedures
6. Study of Dividend Program
7. Analysis of Growth
8. Review of legislation, etc.

In the light of the foregoing, we conclude that it would be desirable for the State Accident Fund to have an "Actuarial Examination" by independent consulting actuaries once in each two years. The selection of a firm of consulting actuaries to make an "Actuarial Examination" should be made by the Commissioners from a panel of three firms having a wide experience in the field of State Insurance Funds. The panel together with the Commissioners' recommendation should be submitted to the Governor for approval.

Relationship to Industrial Commission

Maryland's Workmen's Compensation Law effective November 1, 1914 provided for the creation of a "State Accident Fund" to be ad-

ministered by the "State Industrial Accident Commission". In 1941 the Workmen's Compensation Law was amended by creating an agency of the State to be known as the "Commissioners of the State Accident Fund". In our opinion this was a step in the right direction, because it removed from the Industrial Accident Commission the dual responsibilities of acting as trustees of the financial resources of the Fund and at the same time adjudicating the injured workers' claims to be paid out of these trusteed funds.

Our examination discloses that the relationship of the State Accident Commission with the State Industrial Accident Commission, is identical in all respects with the relationship of private insurance carriers and the Industrial Accident Commission. The Industrial Accident Commission adjudicates State Fund claims on the same basis as any other workmen's compensation claim coming before that Commission. Furthermore, in accordance with Section 16, Article 101 of the Code of General Laws, the Industrial Commission levies an assessment against the State Fund for its proportionate share of the operating expenses of the Industrial Accident Commission, similar to that of all other insurance carriers and self-insurers.

Accordingly, we cannot see any reason to suggest any changes in the existing relationship of the State Accident Fund and the State Industrial Accident Commission in respect to administration, claims and assessments.

RECOMMENDATIONS

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